What is claimed is:

1. A full-color organic light-emitting diode (OLED) display, comprising:

a substrate;

a white light-emitting OLED, disposed over the substrate, comprising anodes, cathodes, and at least one white light-emitting organic material layer disposed between the anode and the cathode;

a first passivation layer, covering the surface and sidewalls of the white light-emitting OLED;

stacked layers of a color-converting layer and a color filter, disposed on the first passivation layer and separated at intervals; and

a second passivation layer, covering the surface and sidewalls of the stacked layers.

2. The full-color OLED display as claimed in claim 1, wherein the material of the substrate comprises glass.

3. The full-color OLED display as claimed in claim 1, further comprising a reflective layer disposed between the substrate and the white light-emitting OLED.

4. The full-color OLED display as claimed in claim 3, wherein the material of the reflective layer comprises chromium (Cr) and aluminum (Al).

5. The full-color OLED display as claimed in claim 1, wherein the display is actively driven.

6. The full-color OLED display as claimed in claim 5, further comprising a plurality of transistors disposed on the substrate and electrically connecting with the cathodes.

7. The full-color OLED display as claimed in claim 1, wherein the display is passively driven.

8. The full-color OLED display as claimed in claim 7, wherein the anodes, parallel with each other and separated at intervals, are perpendicular to the cathodes, also parallel with each other and separated at intervals.

9. The full-color OLED display as claimed in claim 1, wherein the material of the first passivation layer comprises silicon nitride (Si_3N_4) and silicon oxide (SiO_2).

10. The full-color OLED display as claimed in claim 1, wherein the stacked layers are separated by a plurality of ribs at intervals.

11. The full-color OLED display as claimed in claim 1, wherein the material of the ribs comprises a resin.

12. The full-color OLED display as claimed in claim 1, wherein the second passivation layer comprises silicon nitride (Si_3N_4) and silicon oxide (SiO_2).

13. The full-color OLED display as claimed in claim 1, further comprising a polarized plate disposed on the second passivation layer.

14. The full-color OLED display as claimed in claim 1, further comprising a buffer disposed between the white light-emitting OLED and the first passivation layer.

15. The full-color OLED display as claimed in claim 1, wherein the anodes comprise transparent conductive material.

16. The full-color OLED display as claimed in claim 1, wherein the cathodes comprise transparent conductive material.

17. A method of fabricating a full-color OLED display, comprising:

providing a substrate;

forming a white light-emitting OLED comprising anodes, cathodes, and at least one white light-emitting organic material layer on the substrate, wherein the white light-emitting organic material layer is disposed between the anodes and the cathodes;

forming a first passivation layer to cover the surface and sidewalls of the white light-emitting OLED;

forming a plurality of ribs separated at intervals on the first passivation layer;

filling stacked layers of a color-converting layer and a color filter in the intervals between the ribs; and

forming a second passivation layer to cover the surface and sidewalls of the stacked layers.

18. The method as claimed in claim 17, wherein the material of the substrate comprises glass.

19. The method as claimed in claim 17, before formation of the white light-emitting OLED, further comprising forming a reflective layer on the substrate.

20. The method as claimed in claim 19, wherein the material of the reflective layer comprises chromium (Cr) and aluminum (Al).

21. The method as claimed in claim 1, wherein the display is actively driven.

22. The method as claimed in claim 5, further comprising forming a plurality of transistors on the substrate to electrically connect with the cathodes.

23. The method as claimed in claim 1, wherein the display is passively driven.

24. The method as claimed in claim 23, wherein the anodes, parallel with each other and separated at intervals, are perpendicular to the cathodes, also parallel with each other and separated at intervals.

25. The method as claimed in claim 17, wherein the material of the first passivation layer comprises silicon nitride (Si_3N_4) and silicon oxide (SiO_2).

26. The method as claimed in claim 17, wherein the material of the ribs comprises a resin.

27. The method as claimed in claim 17, wherein the second passivation layer comprises silicon nitride (Si_3N_4) and silicon oxide (SiO_2).

28. The method as claimed in claim 17, further comprising, after forming the second passivation layer, forming a polarized plate thereon.

29. The method as claimed in claim 17, further comprising, before formation of the first passivation layer, forming a buffer on the white light-emitting OLED.

30. The method as claimed in claim 17, wherein the anode comprises transparent conductive material.

31. The method as claimed in claim 17, wherein the cathode comprises transparent conductive material.

32. The method as claimed in claim 17, wherein the color-converting layer is formed by spin-coating.

33. The method as claimed in claim 17, wherein the color filter is formed by spin-coating.

34. The method as claimed in claim 25, wherein the first passivation layer is formed by sputtering.

35. The method as claimed in claim 27, wherein the second passivation layer is formed by sputtering.